

Another bird from the “*Voyage de La Coquille*” (1822-1825)

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ABSTRACT: To the review of the ornithology of the voyage of *La Coquille* by Dickinson *et al.* (2015) and the additions of Dickinson *et al.* (2019) and Lee & Bruce (2019a), a further bird from this expedition is hereby presented: the Masked Booby *Sula dactylatra*, named by R.P. Lesson. The *Hydrographie et Physique* volume of the *La Coquille* voyage (Duperrey 1829) containing daily records of at-sea observations, is here acknowledged as a previously unrecognized resource for historical ornithology and marine ecology. This volume also reveals a previously unnoticed name, “*sula nigrodactyla*”, a *nomen nudum*, initially used then discarded by Lesson for the Masked Booby.

KEYWORDS: *La Coquille*, R.P. Lesson, Masked Booby, *Sula dactylatra*, Duperrey, *Hydrographie et Physique*.

INTRODUCTION

A review of the authorship and dates of publication of birds newly described from the voyage of *La Coquille* (1822-25) by Dickinson *et al.* (2015) was a comprehensive study intended to provide the first complete representation of authorship and dates of ornithological publications between 1825 and 1830 resulting from the scientific expedition of the French naval corvette *La Coquille*. The expedition under the command of Louis Isidore Duperrey (1786-1865) circumnavigated the globe during 1822-1825. Among its extensive collection of mineralogical, botanical and zoological specimens, at least 254 bird species were identified, some 46 of which were apparently new to science (Cuvier 1825: 15). Almost all were from the Southern Hemisphere, mostly from the Pacific-Oceania region. The scientific results of this expedition were published in six volumes (*tomes*), some in two parts (*parties*), and four large atlases, issued in serial as *livraisons* between 1826 and 1830.

The publication chronologies in Dickinson *et al.* (2015) for 83 species revealed the need for correction of some long-standing errors in citation of names when first used. In eleven cases the taxa were given two names so that 94 names were considered.

The authorship of all but four of these names was attributed to René Primevère Lesson (1794-1849), or to his naval surgeon colleague Prosper Garnot (1794-1838), or to both as co-authors.

Dickinson *et al.* (2019) in clarifying the status of the now extinct Maupiti Monarch *Pomarea maupitiensis* effectively added one more bird name from the *La Coquille* expedition. Lee & Bruce (2019a), in a supplement to Dickinson *et al.* (2015), identified three more, overlooked in the 2015 review, all by Lesson. This article adds a further bird name from the *La Coquille* expedition, also by Lesson, that of the Masked Booby *Sula dactylatra*. Furthermore the voyage *Hydrographie et Physique* volume reveals a previously unrecognized name for this

species “*sula nigrodactyla*” (Duperrey 1829: 12).¹ This is a *nomen nudum* which was very soon after discarded by Lesson in favour of its present scientific name which Lesson first had published 1829 in a livraison of the voyage *Zoologie* volume, but without a full description (Lesson 1829: 494). This 1829 name is also a *nomen nudum* but Lesson published it again soon after, this time with a full description in his *Traité d’Ornithologie* (1831), leading Peters (1931: 83), after Mathews (1911: 9-10), to cite the name from this publication.

The daily observational records of the *Hydrographie et Physique* volume of the 1822-1825 global voyage of *La Coquille* add further insights into the work of this expedition. This volume, previously not well recognized, is here acknowledged as a valuable addition to the natural history bibliography of the *La Coquille* voyage. It could well prove to be a useful resource for further marine ornithological, biological and possibly climate science research.

This article follows the format (slightly modified) used in Dickinson *et al.* (2015) and Lee & Bruce (2019a) for “Names Currently in Use”. It begins with the scientific name, including author and date, and an abbreviated reference to the page numbering of the 4th edition of the *Howard & Moore checklist* (Dickinson & Remsen 2013), “H&M 4”. This is followed by the publication and page details including the livraison number, and “b.d.” for best date – based on the dating of the publication of the livraisons reported in the appropriate edition of the *Bibliographie de la France* for the *Traité*, and for the voyage *Zoologie* volumes as reported by Mathews (1913), Cretella (2010) and Dickinson & Raty (2019).

NAME CURRENTLY IN USE

***Sula dactylatra* Lesson, 1831**

H&M 4; 1: 195

Sula dactylatra. *Traité d’Ornithologie*. Livraison 8: 601 – b.d. 11 June 1831.

Synonymy:

sula dactylatra. *Zoologie*. (“Voyage”), Tome 1, Partie 2. Livraison 11: 494 – b.d. 4 April 1829²

sula nigrodactyla. Less., *Hydrographie et Physique*, p.12 (Duperrey 1829) – *nomen nudum*.

Lesson reported sightings of various “fous” (boobies *Sula* spp.) of which there are six recognised species, throughout *La Coquille*’s global circumnavigation, especially in the tropical Pacific. For the most part he was restricted to attempting to identify these from the ship (Lesson 1825: 89).

However during the last weeks of the voyage in January 1825 *La Coquille*, homebound for France, called at Ascension Island in the tropical South Atlantic.³ Here, among ‘legions of seabirds’, Lesson noted three species of “fou” (booby), of which the ‘most remarkable’ he reported was the booby called “*manche de velours*”. Lesson collected specimens of this ‘velvet-sleeved booby’, later naming it *sula dactylatra* [sic] in a footnote in his account in the voyage *Zoologie* volume, 1 (Lesson 1829: 494):

¹ Not reported by Sherborn (1928: 4339-4340) who in other cases listed names that were “*nom. nud.*”.

² This 1829 name from the *Zoologie* (“Voyage”) volume is, for reasons explained, here listed below the accepted citation from 1831.

³ *La Coquille* stayed at Ascension Island from 18 to 28 January 1825.

*“Le manche de velours a été pris par la plupart des ornithologistes pour le fou de Bassan en plumage parfait de mâle, dont ils ne faisaient qu’une variété de taille. Mais le manche de velours diffère par des caractères nets et tranchés du fou de Bassan, ainsi que nous le dirons en donnant la description des espèces, et nous le nommerons sula dactylatra.”*⁴

Lesson noted the similarities between this species of booby and the Northern Gannet (*Morus bassanus*). The latter he referred to as the “fou de Bassan” and “le fou blanc à ailes noires (*Sula candida*)”, with which he had earlier evidently confused the Masked Booby (see Lesson 1825: 100).⁵

A specimen of the Masked Booby, the holotype of the species which Lesson collected from Ascension Island, is held in the Muséum national d’Histoire naturelle in Paris (MNHN-ZO-MO-1991-513). See also Voisin (1992: 170).

As noted Lesson again proposed the name *Sula dactylatra*, this time with a formal description, in his *Traité* (1831: 601):

*“2. ° FOU MANCHE DE VELOURS ; Sula dactylatra, Less., Zool, de la Coq., texte, part. 2, p. 494. Espèce confondue avec le fou de Bassan adulte; est le manga de Velado des Portugais. Plumage blanc pur; ailes et queue noires; bec corné; tarses jaunes; la base du bec cerclée d’une peau nue, qui s’étend sur la gorge en forme de demi-cercle. Femelle: Grise. L’île de l’Ascension, les mers chaudes des Tropiques.”*⁶

In 1837 Carl Sundevall named the species as *Dysporus cyanops* which had general acceptance until Mathews (1911) pointed out that as Lesson’s name had preceded Sundevall’s by six years, *Sula dactylatra* had priority (Mathews 1911: 9-10).

Gill *et al.* (2010); Dickinson & Remsen (2013); and Del Hoyo & Collar (2014) recognise four genetically distinct subspecies of the Masked Booby, while Kingsley *et al.* (2019) suggest “up to six”, distributed across the pan-tropical zone. Apart from the nominate species *S. d. dactylatra* (western Atlantic/Caribbean) there is general agreement on the following subspecies: *S. d. personata* (tropical Pacific), *S. d. tasmani* (western Pacific, northern Tasman sea), and *S. d. melanops* (western Indian Ocean, Red Sea). Kingsley *et al.* (2019) also propose another subspecies *S. d. bedouti* (southeastern Indian Ocean).⁷

There is evidence that apart from the nominate he recorded in January 1825, Lesson had previously observed the Masked Booby at sea periodically throughout *La Coquille*’s global

⁴ In translation: ‘The velvet-sleeved booby was previously taken to be by most ornithologists the Northern Gannet (“fou de Bassan”) in full male plumage, of which they were only a variety of size. But the velvet-sleeved booby differs in sharp and distinctive characteristics from the gannet, as we shall demonstrate by giving the description of the species, and we shall name it *sula dactylatra*.’

⁵ “Dactylatra” Latin for ‘black fingers’; Lesson named this booby for its distinctive black primary wing feathers in flight.

⁶ In translation: ‘Species confused with the adult Northern Gannet; is the *manga de Velado* of the Portuguese. Plumage, pure white; wings and tail black; beak horny; tarsi yellow; the base of the beak ringed with bare skin, which extends on the throat in the shape of a semicircle. Female: grey. Ascension Island, the warm seas of the Tropics.’ Note. As *S. dactylatra* is not sexually dichromatic, Lesson was mistaken in describing the female as “Grise” (grey). Probably this particular female was a bird in juvenile plumage.

⁷ A 6th subspecies *S. d. californica* is known to share haplotypes with *S. d. personata*.

circumnavigation. These observation records began more than two years earlier in early October 1822 in the early stages of the expedition when the corvette was in the tropical Atlantic approaching the coast of Brazil, “en vue” of the islands of Trinidad and Martin Vaz.

From the recorded localities it is likely that Lesson saw up to three other subspecies of the Masked Booby during the voyage. Evidence for this is indicated in the two volumes of his popular book (Lesson 1838, 1839) and more precisely in the brief daily natural history notes contributed by Lesson which are included in the *Hydrographie et Physique* volume of the *La Coquille* voyage (Duperrey 1829).⁸ This volume, unlike the *Zoologie* and *Botanique* volumes, has not been considered a source of interest for natural history research (with the recent exceptions of Lee 2018 and Lee & Bruce 2019a). However *Hydrographie et Physique*, includes tables of daily records from 1822 to 1825 of the ship’s noon position in latitude and longitude, along with sea conditions, wind speed and direction, air and sea temperature, barometric pressure, and in the right hand column headed “RENCONTRES INOPINEES ET REMARQUES” (‘Unexpected Encounters and Remarks’) sightings of seabirds, marine mammals, fish, marine invertebrates and marine flora (usually but not always using common names). In the tropical zones of the Atlantic, Pacific and Indian Oceans there are records of various “fous” (boobies), including the Masked Booby, identified by Lesson as “fou manche de velours” – ‘Velvet-sleeved Booby’.

As noted, Lesson’s first record was made in the Atlantic where the entry for 1 October 1822 also reveals Lesson’s retrospective, evident first attempt at a Latin name for this species “*sula nigrodactyla*” (Duperrey 1829: 12). There were further sightings in the Pacific, en route from Peru to Tahiti approaching the Tuamotu Archipelago, from 10-17 April 1823, (probably *S. d. personata*). Again in the western Pacific, south of Tonga, near the Kermadec Islands in late June/early July 1823, where he recorded them as “*un fou noir et blanc*” (‘black and white booby’) (29 June) and then “*fous blancs à ailes noir*” (‘white boobies with black wings’) (1 & 2 July).⁹ These were almost certainly the Tasman Masked Booby *S. d. tasmani*; islands in the Kermadec archipelago being breeding sites for this sub-species (along with sites at Norfolk and Lord Howe islands) (Ismar *et al.* 2010). Again in late October/early November 1823 Lesson records “fou manche de velours” off the Moluccas near Timor (probably *S. d. bedouti*), and yet again in the Pacific on the northern side of the equator en route from Micronesia to New Guinea in July 1824 (probably *S. d. personata*) (Duperrey 1829: 34, 66 & 96). Though *La Coquille* called at Mauritius and Réunion in October–November 1824 there are no records of any boobies from this region (e.g. *S. d. melanops*) in the daily entries of *Hydrographie et Physique*, nor in the *Zoologie* volumes of the voyage, nor in Lesson’s 2nd volume of his popular book (Lesson 1839).

This additional name *Sula dactylatra*, following the additions of Dickinson *et al.* 2019 and Lee & Bruce (2019a), brings the total from the *La Coquille* expedition to 98¹⁰ recognised

⁸ Duperrey noted information in this volume regarding marine plants and animals observed from the ship was provided by Lesson alone: “Une indication sommaire des plantes marines et des animaux des différents genres que nous avons aperçus, nous ayant été communiquée par M. Lesson, naturaliste de l’expédition...”. Duperrey (1829: 3). In translation: ‘A summary indication of the marine plants and animals of the various genera which we have seen, having been communicated to us by M. Lesson, naturalist of the expedition...’.

⁹ Lesson used the common name “*fous blancs à ailes noir*” synonymously with “*fou manche de velours*” (see Lesson 1825: 100).

¹⁰ Only four of these five extra names are currently recognised or used as valid. The third name in Lee & Bruce

names covering 88 bird taxa, with 63 names currently used as valid, based on the fourth edition of the Howard & Moore *Complete Checklist of birds of the World* (Dickinson & Remsen 2013; Dickinson & Christidis 2014).

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¹¹ Volumes of the *La Coquille* voyage are collectively cited under L.I. Duperrey, but where appropriate I follow Dickinson *et al.* (2015) & Lee & Dickinson (2019a) in citing individual livraisons to their given authors.